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PRE-APPEAL BRIEF REQUEST FOR REVIEW

Docket Number (Optional): 110003.00051.03AB206

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on February 10, 2009

Signature: [signature]

Typed or printed name: Benjamin J. Peirce

Application Number	Filed
10/675,535	September 30, 2003

First Named Inventor: David W. Farchmin

Art Unit	Examiner
2121	Jennifer L. Norton

Applicant requests review of the final rejection in the above-identified application. No amendments are being filed with this request.

This request is being filed with a notice of appeal. (Filed electronically)

The review is requested for the reason(s) stated on the attached sheet(s).
Note: No more than five (5) pages may be provided.

I am the

- ☐ applicant/inventor.
- ☐ assignee of record of the entire interest. See 37 CFR 3.71. Statement under 37 CFR 3.73(b) is enclosed. (Form PTO/SB/96)
- ☑ attorney or agent of record. Registration number 60,481.
- ☐ attorney or agent acting under 37 CFR 1.34. Registration number if acting under 37 CFR 1.34 _____

[signature]
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414-277-5249
Telephone number

February 10, 2009
Date

NOTE: Signatures of all the inventors or assignees of record of the entire interest or their representative(s) are required. Submit multiple forms if more than one signature is required, see below*.

☑ *Total of 1 forms are submitted.

This collection of information is required by 35 U.S.C. 132. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11, 1.14 and 41.6. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Mail Stop AF, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	David W. Farchmin
Application No.:	10/675,535
Filing Date:	September 30, 2003
Title:	Wireless Location Based Automated Components
Atty Docket No.:	110003.00051.03AB206
Examiner:	Jennifer L. Norton

Pre-Appeal Brief Request for Review

Mail Stop AF
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22323-1450

I. Request for Review

Applicant respectfully requests consideration of the following remarks made in connection with a Pre-Appeal Brief Request for Review. This paper accompanies a Notice of Appeal of the final Office action of November 10, 2008 and is being submitted before the filing of an appeal brief. Applicant respectfully asserts that the legal requirements have been misapplied in all of the rejections contained within the final Office action of November 10, 2008. Accordingly, a Pre-Appeal Brief Request for Review is appropriate given the clear error and omissions made in the present case. In view of the following remarks, Applicant respectfully requests the issuance of a Notice of Allowance for the pending claims 1, 3-23, 25-46, 48-54, 56-60, and 62-69.

II. Standing of the Claims

In view of the final Office action mailed November 10, 2008, the claims stand as follows: claims 1, 3, 5, 7, 9, 11-23, 25, 26, 28-33, 35-42, 44, 48, 50, 51, 54, 56-60, and 62-69 stand rejected under 35 U.S.C. §103(a)a as being obvious in view of U.S. Patent Publication No. 2005/0021158 to De Meyer et al ("De Meyer"). Claims 4, 6, 10, 27, 34, 43, 45, 46, 49, 52, and 53 stand rejected under 35 U.S.C. § 103(a) over De Meyer in view of U.S. Patent Publication No. 20030234741 to Rogers et al. ("Rogers"). Claim 8 stands rejected under 35 U.S.C. § 103(a) over De Meyer in view of U.S. Patent Publication No. 2004/0235468 to Luebke et al. ("Luebke"). Applicant respectfully traverses these rejections based on clear misapplication of the applicable legal requirements.

III. Brief Summary of the Invention

The present invention includes an apparatus, system, and method that allows a user of a handheld wireless information device (WID) to move about within a manufacturing facility and, based on the location of the WID, receive information and control interfaces for nearby machinery and/or processes via the WID. To determine the location of the WID, stationary transmitters scattered throughout the facility transmit signals which are received by the WID and used to determine the present location. Alternatively, the WID transmits signals which are received by stationary receivers scattered throughout the facility and used by a connected processor to determine the WID location.

The accuracy of WID-calculated location determinations can be improved by increasing the amount of received location data used to calculate the location. One way to do this is to increase the quality of the received data such as by increasing the signal strength of the transmitted data. The amount of location data can also be increased by using additional stationary data receivers/transmitters and the quality of that data at critical locations within a facility (i.e., proximate operating machines where control/monitoring is usually most critical) can be increased by placing the stationary

receivers/transmitters proximate locations within the facility at which machine information access and/or control will be needed. In other words, instead of placing additional receivers at uniform locations throughout a facility, higher quality signals can be obtained by placing the receivers at locations proximate machines that are to be monitored and/or controlled via a WID.

One way to increase the number of data receivers while minimizing installation costs associated with installing additional receivers is to include the receivers in components that are already being installed in a facility for other purposes. Stationary human machine interfaces (HMIs) that are usable to monitor and/or control machines are one component necessarily being installed in facilities that may be outfitted with additional stationary receivers/transmitters. To this end, HMIs are routinely installed proximate machines to allow system users to control and/or monitor machine operations. In addition, HMIs include processors that can easily provide processing power for transmitting and/or receiving signals, for calculating locations or for transferring information to some other processor for performing the locating computations.

IV. Rejection Under 35 U.S.C. §103(a)

A. Legal Standard

Per MPEP § 2142, to reach a proper determination under 35 U.S.C. 103, the examiner must step backward in time and into the shoes worn by the hypothetical "person of ordinary skill in the art" when the invention was unknown and just before it was made. In view of all factual information, the examiner must then make a determination whether the claimed invention "as a whole" would have been obvious at that time to that person. Knowledge of applicant's disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the "differences," conduct the search and evaluate the "subject matter as a whole" of the invention. The tendency to resort to "hindsight" based upon applicant's disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

Further, prior art is not limited to the references being applied, but includes the background knowledge of one of ordinary skill in the art. *KSR Intl. Co. v. Teleflex Inc.*, 127 S.Ct. 1742 (2007). Where the prior art does not teach or suggest all of the claimed limitations, the invention may still be obvious where the differences between the prior art and the claimed invention would be obvious to one of ordinary skill in the art. Id. at 1741.

Per MPEP § 2143, the key to supporting any rejection under 35 U.S.C. 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious. To this end, the MPEP provides a number of exemplary rationales that may support a conclusion of obviousness and are consistent with the proper "functional approach" to the determination of obviousness as laid down in *Graham*. These rationales include:

(A) Combining prior art elements according to known methods to yield predictable results;
(B) Simple substitution of one known element for another to obtain predictable results;
(C) Use of known technique to improve similar devices (methods, or products) in the same way;
(D) Applying a known technique to a known device (method, or product) ready for improvement to yield predictable results;
(E) "Obvious to try" - choosing from a finite number of identified, predictable solutions, with a reasonable expectation of success;

(F) Known work in one field of endeavor may prompt variations of it for use in either the same field or a different one based on design incentives or other market forces if the variations are predictable to one of ordinary skill in the art;
(G) Some teaching, suggestion, or motivation in the prior art that would have led one of ordinary skill to modify the prior art reference or to combine prior art reference teachings to arrive at the claimed invention.

B. The rejection of claims 1, 3, 5, 7, 9, 11-23, 25, 26, 28-33, 35-42, 44, 48, 50, 51, 54, 56-60 and 62-69 as being obvious over De Meyer was clearly erroneous.

In the November 10, 2008 Final Rejection, the Examiner admitted that De Meyer does not disclose each and every element of the pending claims. Among other things, De Meyer does not disclose a stationary HMI unit with a receiver for receiving wireless signals from a handheld HMI unit as called for in the claims. The Examiner asserted that because stationary HMI units are known in the art and De Meyer discloses stationary interfaces that receive HMI data from a handheld HMI unit, the claims are obvious because one of ordinary skill would combine them to get a stationary HMI unit that also receives wireless signals from a handheld HMI unit.

Applicant respectfully submits that the rejection of these claims is clearly erroneous because the "differences between the prior art and the claimed invention" are not obvious. De Meyer does not disclose all the limitations of the claims and in fact, actually teaches away from the claimed invention such that one of ordinary skill would not arrive at the claimed invention. Therefore, the obviousness rejections of these claims over De Meyer are based on clear error in both law and fact. As such, Applicant respectfully requests the Panel to reverse the rejection of these claims.

Claims 1, 3, 5, 7, 9, 11-23, 25, 26, 28-33, 35-42, 44, 48, 50, 51, 54, 56-60, and 62-65

Regarding independent claims 1, 23, 31, 37, 40, and 54, the Examiner and Applicant agree that the Background of De Meyer discloses stationary HMIs units for controlling machines and processes. *See* Remarks After Second Non-Final Office Action, January 30, 2008, page 1. *See also* Final Office Action, November 10, 2008, page 3. The Examiner and Applicant also agree that De Meyer discloses an inventive system of stationary HMI access point devices (e.g., data modules AP1, AP2 and communication modules AP3-AP6) with receivers and a portable, handheld HMI unit MU wherein signals transmitted by the handheld HMI unit MU are received by at least one of the access point modules AP1-AP6 and used to ascertain the location of the handheld HMI unit MU. *Id.* However, the Examiner and Applicant disagree as to whether De Meyer teaches or suggests stationary HMIs with receivers that provide direct interaction with an operator as called for in the rejected claims. The Examiner and Applicant further disagree as to whether this is merely an obvious difference over De Meyer.

As asserted in greater detail in the Remarks after [First] Non-Final Office Action dated August 20, 2007, De Meyer discloses a system in which wireless devices MUs are used to access location specific information about machines proximate the devices MUs. De Meyer does not contemplate wireless receivers (or for that matter transmitters) included in true HMI units i.e., interfaces where a human can directly input data or directly receive information. Despite the terminology suggesting otherwise, AP1 and AP2 of Fig. 1 (dubbed 'HMI data modules') are not HMI units in the sense that they cannot be used by a system user to directly enter information into the system or to directly receive information about a machine associated with the module.

Instead, modules AP1 and AP2 cooperate with the true HMI devices, i.e., the handheld units MU, to receive input or provide output. De Meyer very clearly teaches that data to be presented to a user is transmitted from (but not displayed by) one of the modules AP1 or AP2 to the mobile unit MU which then displays the received information to the user. Similarly, to input information to control a machine associated with one of the modules AP1 or AP2, De Meyer teaches that a user inputs control information into the mobile unit MU which is then transmitted to one of the stationary modules AP1 or AP2. As such, modules AP1 and AP2 are HMI modules in name only and are more akin to transceivers that have some processing power.

De Meyer teaches a second embodiment shown in Figs. 5-7 that includes HMI communications modules AP3-AP6 and a server CS that perform the functions of the HMI data modules AP1, AP2 of Fig. 1. In the second embodiment, like the first, AP3-AP6 (dubbed 'HMI communication modules') are also not HMI units because they do not allow a human user to directly interface with a machine. The system of the second embodiment also outputs information to a user by transmitting to a mobile unit MU and also obtains input from the user via the mobile HMI unit MU, and not via units AP3-AP6.

It should further be recognized that De Meyer's entire specification teaches away from prior art systems that include stationary HMI units. De Meyer instead advocates the benefits of replacing stationary HMI units with the mobile HMI units MU. In this regard see paragraphs [0005] - [0007] of De Meyer's background section that describes shortcomings of systems that rely on stationary HMIs (reproduced in the August 20, 2007 Response. Absolutely nothing in De Meyer teaches or even remotely suggests that the receivers could or should be included in the stationary interface devices. Instead, combining De Meyer's teachings, one of skill in the art would, at best, be motivated to provide a system including a stationary interface and a separate stationary access point proximate the interface where the access point, not the stationary interface, includes the receiver. A system including a receiver separate from a stationary interface is not the same as a system that includes an interface that itself includes a receiver.

Claims 66-69

Regarding independent claim 66, the Examiner's rejection is in clear error because of the omission of at least one non-obvious limitation called for in this claim and therefore the *prima facie* case of obviousness is deficient. As explained in more detail in the July 31, 2008 Remarks After Third Non-Final Rejection, De Meyer does not teach or suggest transmitting signal strength data from any device to any other device as called for in claim 66. Specifically, De Meyer fails to teach or suggest a WID transmitting signal strength data to a second processor so that the second processor can use the signal strength data to determine WID location. In addition, De Meyer fails to teach or suggest a second processor that uses signal strength data transmitted to it by a WID to ascertain WID location.

De Meyer teaches two processes for determining the location of a handheld unit MU. In the first process, detailed in paragraph [0076], the handheld unit MU receives short range fields or "emissions" from HMI communication modules AP5, AP6, etc., and then determines its own position. In this process, there is no second processor separate from the handheld unit MU that determines the position of the unit MU but instead the unit MU determines its position and provides the position information to the second processor. In addition, the MU of the first process does not transmit signal strength data to a second processor but instead transmits MU position data. In the second process, the handheld unit MU generate "emissions" (i.e., "short range fields") that are received by modules AP5, AP6, etc., and are subsequently

analyzed to determine the position of the unit MU. The short range emissions transmitted by the unit MU to modules AP5 and AP6 are analyzed to identify signal strength data when they are received and are not akin to signal strength data. In other words, in De Meyer's second process, known strength signals are not transmitted to a WID but instead known signal strength signals are transmitted by a WID. The known signal strengths are not known strengths of signals received by the MU and instead are signals of known strength generated by the MU itself.

Thus, because De Meyer does not teach or suggest at least one non-obvious element called for in the claim, the Examiner's *prima facie* case is deficient. Thus, the rejection of claim 66 is clear error. Applicant respectfully request that the rejection of claim 66 and claims that depend therefrom be withdrawn.

C. The rejection of claims 4, 6, 10, 27, 34, 43, 45, 46, 49, 52, and 53 as being obvious over De Meyer in view of Rogers is clearly erroneous.

Applicant submits that the Examiner's rationale for arriving at an obviousness rejection based upon the cited references or any general knowledge available to the artisan at the time of the invention is clearly in error. Further, the Examiner clearly erred in determining that the differences between the prior art and the claimed invention obvious to one of skill in the art because the prior art expressly teaches away from the claimed invention as explained above.

D. The rejection of claim 8 as being obvious over De Meyer in view of Luebke is clearly erroneous.

Applicant submits that the Examiner's rationale for arriving at an obviousness rejection based upon the cited references or any general knowledge available to the artisan at the time of the invention is clearly in error.

V. Conclusion

In viewing the teachings of the cited references, alone or in combination, there is simply no teaching, suggestion, or motivation in the cited references or in the knowledge generally available to the artisan that would have led the artisan to combine the prior art teachings to arrive at the claimed invention. Furthermore, there is no rationale to support a conclusion that one skilled in the art could have combined the elements as claimed by known methods with no change in their respective functions, and the combination would have yielded nothing more than predicable results to the artisan at the time of the invention. Therefore, the Examiner's rejection of the pending claims constitutes a clear error, and as such, reversal of the Examiner's rejection is respectfully requested.

Respectfully submitted,

David W. Farchmin

Date: February 10, 2009

By: _____

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